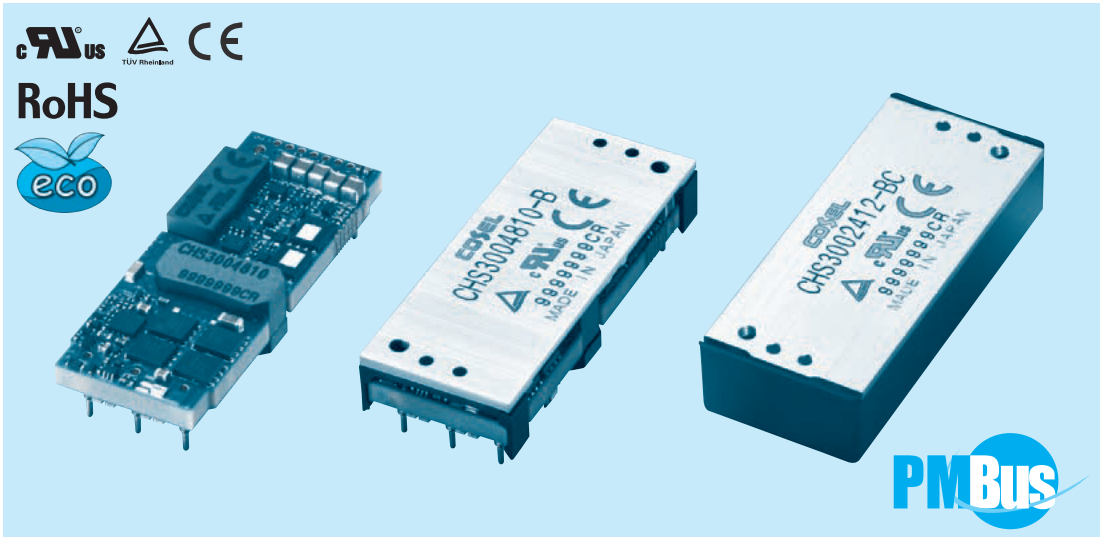
COSEL DC-DC Converters Bus Converter·Power Module Type

CHS300

Ordering information

CH	S	300	48	10	-□
①	②	③	④	⑤	⑧



①Series name
②Single output
③Output power
④Input voltage
24:DC18 - 36V
48:DC36 - 76V
⑤Output voltage
05:5V
10:10V
12:12V
12H:12V (High efficiency type)
15:15V
⑧Optional
R :with Remote ON/OFF Positive logic control
U :Shut down in protection circuit working
B :Baseplate option with mounting hole M3
BC:Baseplate and case option with mounting hole M3 (only CHS30024)
L2:Pin length 5.3mm
L5:5pins option (+S,-S,TRM less)
I :with the PMBus interface (only CHS3004810/4812)

MODEL	CHS3002405	CHS3002412	CHS3002415
MAX OUTPUT WATTAGE[W]	200.0	200.4	202.5
DC OUTPUT	5V 40A	12V 16.7A	15V 13.5A

SPECIFICATIONS

	MODEL		CHS3002405	CHS3002412	CHS3002415
INPUT	VOLTAGE[V]		DC18 - 36		
	CURRENT[A]	*1	8.91typ	9.08typ	9.02typ
	EFFICIENCY[%]	*1	93.5typ	92.0typ	93.5typ
OUTPUT	VOLTAGE[V]		5	12	15
	CURRENT[A]		40	16.7	13.5
	LINE REGULATION[mV]		10max	24max	30max
	LOAD REGULATION[mV]		10max	24max	30max
	RIPPLE	[mVrms] *2	40max	50max	100max
		[mVp-p] *2	120max	150max	280max
	RIPPLE NOISE[mVp-p]	*2	150max	180max	300max
	TEMPERATURE REGULATION[mV]		120max	240max	300max
	DRIFT[mV]	*3	20max	40max	50max
	START-UP TIME[ms]		50max (DCIN 24V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-20% / +20%	-20% / +10%	-20% / +5%
	OUTPUT VOLTAGE SETTING	*1	±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		125% - 145% (Auto restart)	115% - 135% (Auto restart)	110% - 130% (Auto restart)
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)		

MODEL	CHS3004810	CHS3004812	CHS3004812H
MAX OUTPUT WATTAGE[W]	300.0	300.0	300.0
DC OUTPUT	10V 30A	12V 25A	12V 25A

SPECIFICATIONS

	MODEL		CHS3004810	CHS3004812	CHS3004812H
INPUT	VOLTAGE[V]		DC36 - 76		
	CURRENT[A]	*1	6.61typ	6.61typ	6.55typ
	EFFICIENCY[%]	*1	94.5typ	94.5typ	95.5typ
OUTPUT	VOLTAGE[V]		10	12	12
	CURRENT[A]		30	25	25
	LINE REGULATION[mV]	*6	20max	24max	24max
	LOAD REGULATION[mV]	*6	20max	24max	24max
	RIPPLE	[mVrms] *2	40max	50max	50max
		[mVp-p] *2	120max	150max	150max
	RIPPLE NOISE[mVp-p]	*2	150max	180max	180max
	TEMPERATURE REGULATION[mV]		200max	240max	240max
	DRIFT[mV]	*3	30max	40max	40max
	START-UP TIME[ms]		50max (DCIN 48V, Io=100%)		
	OUTPUT VOLTAGE ADJUSTMENT RANGE	*4	Fixed (TRM pin open), adjustable by external resistor		
			-10% / +10%		
	OUTPUT VOLTAGE SETTING	*1	±1.6%		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Auto restart)		
	OVERVOLTAGE PROTECTION		115% - 135% (Auto restart)		
	REMOTE SENSING		Provided		
	REMOTE ON/OFF		Provided (Negative Logic L : ON, H :OFF)		

GENERAL SPECIFICATIONS

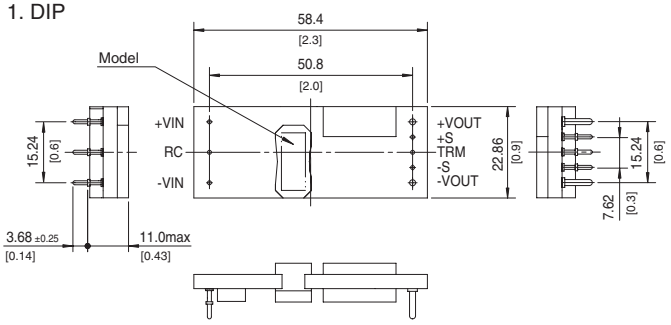
ISOLATION	INPUT-OUTPUT		DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	INPUT-BASEPLATE	*5,*7	DC2,250V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)
	OUTPUT-BASEPLATE	*5,*7	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 5,000m (16,000 feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT		196.1m/s² (20G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1
OTHERS	CASE SIZE/WEIGHT		58.4×11.0×22.86mm [2.3×0.43×0.9 inches] (W×H×D) / 38g max
			58.9×12.7×23.26mm [2.32×0.5×0.92 inches] (W×H×D) / 50g max *5
			61.1×14.3×26.1 [2.41×0.56×1.03inches] (W×H×D) / 57g max *7
	COOLING METHOD		Convection / Forced air / Conduction

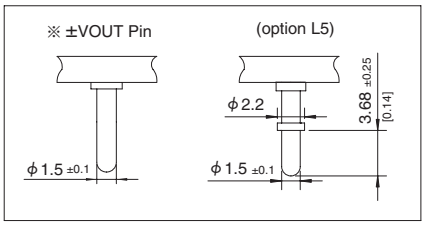
*1 At rated input (DC24V, DC48V) and rated load. Ta=25℃, 2m/s.
*2 Ripple and ripple noise is measured by using measuring board with ceramic capacitor 22μF.
*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
*4 Refer to the instruction manual for input voltage derating.
*5 BasePlate Option.
*6 At input voltage DC36 - 76V (CHS3004810, CHS3004812), DC40 - 76V (CHS3004812H).
*7 Baseplate and case option.

External view

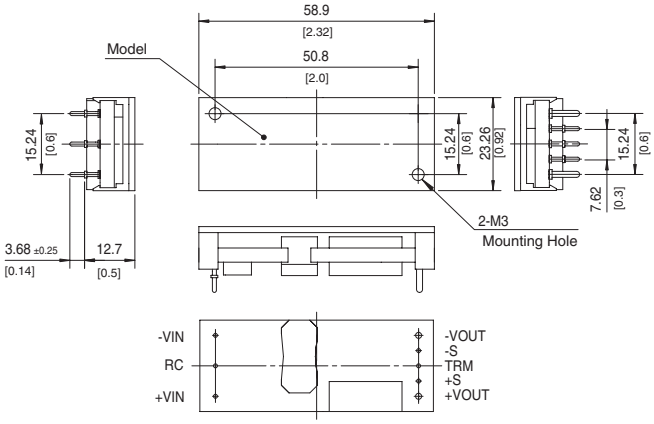
1. DIP

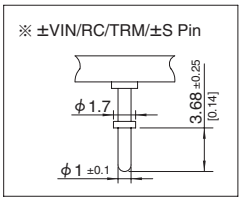
※ Tolerance:±0.5 [±0.02]
※ Dimensions in mm, [ ]=inches

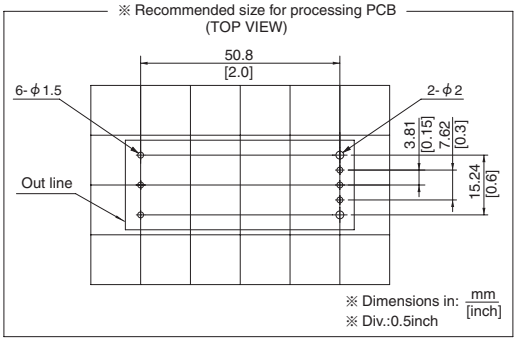




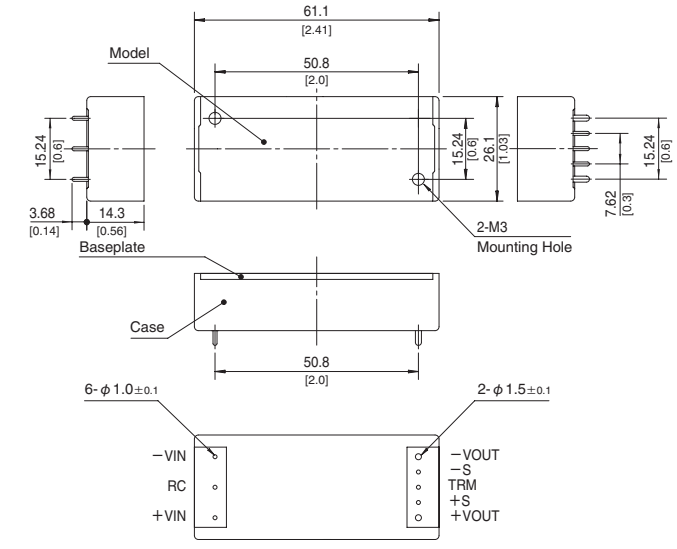
2. BasePlate (optionB)



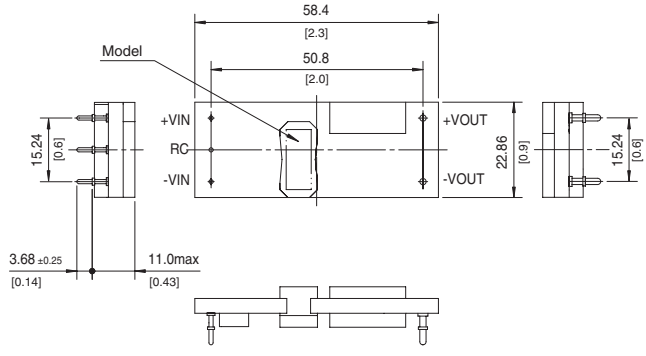


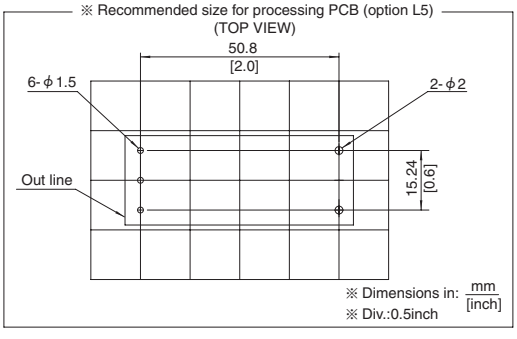


3. Baseplate and case (option BC)



4. 5pins type (option L5)





∗Please contact us about external view of the PMBus interface (option I).